

IN THE CLAIMS:

Claims 1 - 23 (Canceled)

Claim 24 (New): A method of controlling the presence of surface and airborne microorganisms in an air handler having a heat transfer coil comprising a tube and a plurality of spaced parallel fins and defining a surface, comprising

energizing a germicidal lamp to emit distributed UVC radiation

directing the UVC radiation across the coil face to the coil's tube and fins

reflecting and directing the ultraviolet radiation by the coil's tube and the fins throughout the coil, thereby increasing the flux density of the ultraviolet radiation and the dosage of the radiation applied to airborne microorganisms and microorganisms carried on the surface

continuing to irradiate the surface with the UVC radiation from the germicidal lamp at least intermittently until the surface is organically clean.

Claim 25 (New): The method of controlling the presence of surface and airborne microorganisms in an air handler of claim 24 wherein said reflecting and directing of the ultraviolet radiation received by the coil and the fins is affected by the reflectivity of ultraviolet radiation from the materials from which the fins are fabricated, thereby increasing the flux density of said radiation.

Claim 26 (New): The method of controlling the presence of surface and airborne microorganisms in an air handler of claim 24 wherein said reflecting and directing of the ultraviolet radiation reflected from the fins continues until said radiation is absorbed, thereby increasing the dosage of radiation applied.

Claim 27 (New): The method of controlling the presence of surface and airborne microorganisms in an air handler of claim 24 wherein the germicidal tube emits ultraviolet radiation substantially at 253.7 nm and generates an insignificant quantity or less of ozone.

Claim 28 (New): The method of controlling the presence of surface and airborne microorganisms in an air handler of claim 24 wherein the surface is disposed in an environment having a temperature below 58° F.

Claim 29 (New): A method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation, wherein during operation of the air handling system, organic matter accumulates upon an internal surface of the heat transfer system, the accumulated organic matter thereby degrading the performance of the heat transfer system, the method comprising

energizing a germicidal lamp to emit distributed UVC radiation

directing the UVC radiation at the internal surface of the heat transfer system

continuing to irradiate the internal surface of the heat transfer system with the UVC from the germicidal lamp at least intermittently until the internal surface of the heat transfer system is organically clean.

Claim 30 (New): The method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation of claim 29, the heat transfer system comprising a heat exchanger, the method further comprising reflecting and directing the UV radiation by the heat exchanger, thereby increasing the distribution and flux density of the UV radiation and the dosage of the radiation applied to the accumulated organic matter.

Claim 31 (New): The method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation of claim 29 wherein the reflecting and directing of the UV radiation received by the heat exchanger is effected by the reflectivity of UV radiation from the materials from which the heat exchanger is fabricated, thereby increasing the flux density of the radiation.

Claim 32 (New): The method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation of claim 29 wherein the air handling system comprises a cooling system.

Claim 33 (New): The method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation of claim 29 wherein the directing of the UVC radiation received by the surface of the heat transfer system is effected by the reflectivity of ultraviolet radiation from the materials from which the heat transfer system is fabricated, thereby increasing the flux density of the radiation.

Claim 34 (New): The method of maintaining cleanliness of a heat transfer system in an air handling system through UVC irradiation of claim 29 wherein the surface of the heat transfer system is disposed in an environment having a temperature below 58° F.

Claim 35 (New): A method of maintaining cleanliness of a drain pan of a heat transfer system through UVC irradiation, wherein during normal use organic matter accumulates upon a surface of the drain pan, the accumulated organic matter thereby degrading the performance of the drain pan, the method comprising

energizing a germicidal lamp to emit distributed UVC radiation

directing the UVC radiation at the drain pan

continuing to irradiate the surface of the drain pan with the UVC from the germicidal lamp at least intermittently until the surface of the drain pan is organically clean.

Claim 36 (New): The method of maintaining cleanliness of a drain pan through UVC irradiation of claim 35 wherein the directing of the UVC radiation received by the drain pan is effected by the reflectivity of ultraviolet radiation from the materials from which the drain pan is fabricated, thereby increasing the flux density of the radiation.

Claim 37 (New): The method of wherein the germicidal lamp emits ultraviolet radiation substantially at 253.7 nm and generates an insignificant quantity or less of ozone.

Claim 38 (New): The method of maintaining cleanliness of a drain pan through UVC irradiation of claim 35 wherein the surface of the drain pan is disposed in an environment having a temperature below 58° F.

Claim 39 (New): A method of maintaining cleanliness an apparatus through UVC irradiation, wherein during normal use organic matter accumulates upon a surface of the apparatus, the method comprising

providing a germicidal lamp

energizing the germicidal lamp to emit substantially UVC radiation

directing the UVC radiation at the surface to effecting cleaning of the accumulated

organic matter on the surface of the apparatus

continuing to irradiate the surface of the apparatus with the UVC from the germicidal lamp at least intermittently until the surface is substantially clean of the accumulated organic matter.

Claim 40 (New): The method of maintaining cleanliness of a surface through UVC irradiation of claim 39 wherein the directing of the UVC radiation is effected by the reflectivity of ultraviolet radiation from the materials from which the surface is fabricated, thereby increasing the flux density of the radiation.

Claim 41 (New): The method of maintaining cleanliness of a surface through UVC irradiation of claim 39 wherein the germicidal lamp emits ultraviolet radiation substantially at 253.7 nm and generates an insignificant quantity or less of ozone.

Claim 42 (New): The method of maintaining cleanliness of a surface through UVC irradiation of claim 39 wherein the surface of the apparatus is disposed in an environment having a temperature below 58° F.

Claim 43 (New): The method of maintaining cleanliness of a surface through UVC irradiation of claim 39 further comprising exposing the surface to cold, moving air.